3 MEGA PIXEL NETWORK VANDAL-PROOF DOME CAMERA SK-NV231 SERIES QUICK GUIDE

Chapter 1. Install and Specification

1.1 Safety Cautions

1) This camera may be damaged by electrical and physical shock.
   Use regulated 12V DC, 1A power supply. Do not throw or drop it onto floor.
2) In case it is installed at high location, be sure to mount securely to prevent the unit from falling below.
3) In case the unit fails, Do not try to disassemble the product.
   Contact or consult the distributor or an authorized technician for after-sales service.
   Warranty void for the product disassembled without an authorization from the distributor or an authorized technician.
4) All responsibility by using this unit is on the user.
5) This product has 2 models according to IR LED.
   ① SK-NV30(w/o IR)
   ② SK-NV30IR(with IR)

※This manual is based on SK-NV30IR.

If the product is to be put out of operation definitively, take it to a local recycling plant for a disposal which is not harmful to the environment.

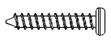
1.2 Package

Camera

Quick Guide

Software & User Manual CD

Screw 4x25 Tp1 3EA

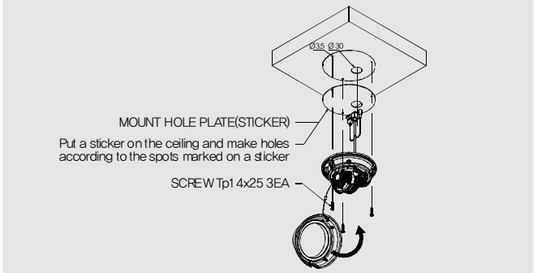


1.3 How to Install

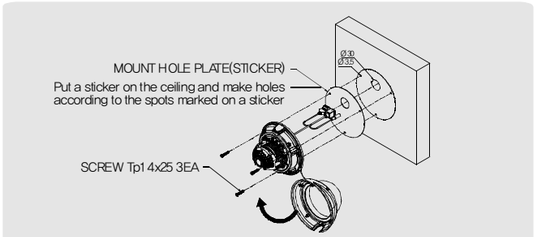
1.3.1 Camera installation

Fix the camera set with the supplied screws on ceiling or wall mount. If you don't use supplied screws, the camera may fall off.
Put a sticker on the ceiling and make holes according to the spots marked on a sticker.

〈Ceiling mount〉


Ø35 Ø30
MOUNT HOLE PLATE(STICKER)
Put a sticker on the ceiling and make holes according to the spots marked on a sticker
SCREW Tp1 4x25 3EA

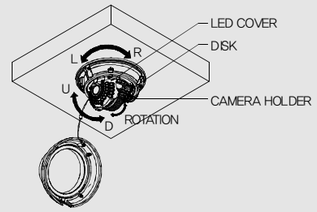
〈Wall mount〉


Ø30
Ø35
MOUNT HOLE PLATE(STICKER)
Put a sticker on the ceiling and make holes according to the spots marked on a sticker
SCREW Tp1 4x25 3EA

1.3.2 Camera Angle Adjustment

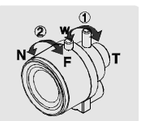
1) Pan adjustment : Grasp the disk of camera and then adjust direction to the right or left(-160° ~ 190°)
2) Tilt adjustment : Grasp the LED cover of camera and then adjust direction to the up or down(6° ~ 90°)
3) Roll adjustment : Grasp the camera holder and then rotate(-178° ~ 178°)

〈Caution〉 If you try to adjust the camera out of limited angle, it might cause troubles and damage to camera.

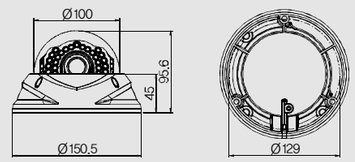


1.3.3 Lens Adjustment

After opening the LED cover,
1) ① By turning the "Tele-Wide" knob, you can Access a range of focal lengths within specified limits.
2) ② Since then, by turning the "Near-Far" knob, you can set the focus toward the wanted object.



1.3.4 Dimension



1.4 Specification

1.4.1 Camera Specification

Item	Specification	
Model No.	SK-NV231	SK-NV231IR
Type	Megapixel network vandal-proof dome camera	
Image Sensor	1/2.8" SONY PROGRESSIVE SCAN CMOS(3.1 Mega Pixels)	
Effective Pixels	2096(H) x 1561(V)	
Resolution	2048x1536 / 1600x1200/ 1920x1080 / 1280x10240 / 1280x960 / 1280x720 / 1024x768 / 640x480 / 320x240	
Scanning System	Progressive Scan	
Min.Illumination	0.01Lux(Sense up Auto x4)	LED OFF : 0.01Lux (Sense up Auto x4) LED ON : 0Lux(25M Range)
Alarm Input/Output	Input : 1, Output : 1	
IR LED	-	24PCS
Lens	Vari-focal auto iris megapixel lens	

1.4.2 Camera Function

Item		Specifications
Function	Privacy Zone	ON / OFF(6 Programmable Zones)
	Day&Night	Auto / Night / Day
	WDR	WDR(1 ~ 5), (Back Light, Front Light)
	Electronic Shutter	Auto : 1/15 ~ 1/9,000(NTSC), 1/12.5 ~ 1/8,000(PAL) Suppress Rolling, Manual
	Sense Up	Auto(1 ~ 14)
	White Balance	Auto / Indoor / Outdoor / Fluorescent / User

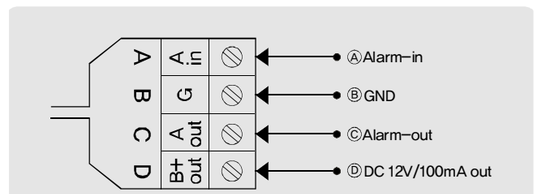
1.4.3 Network Specification

Classification	Item	Specification
Summary	OS	Embedded Linux
	Network Interface	RJ45 10/100BaseT, Ethernet
	Setting	By web browser
	Network Support	Leased Line, Cable Modem, Support Dynamic IP and Static IP, ADSL usable under Router
	Supported Protocol	TCP/IP, UDP/IP, RTP, RTSP, RTCP, NTP, HTTP, DHCP, FTP, SMTP, DNS, DDNS
	Security	User authentication
	PC OS	WINDOWS XP, WINDOWS VISTA, WINDOWS 7
	Web Browser	IE 7.0 or higher
Image	Compression	H.264, MPEG-4, MJPEG
	Resolution	2048x1536 / 1600x1200/ 1920x1080 / 1280x10240 / 1280x960 / 1280x720 / 1024x768 / 640x480 / 320x240
	Compression Rate	200 : 1(Typical)
	Frame Rate	Max. 15fps(@2048X1536)
	Bit Rate	64 ~ 12000kbps
Function	Simultaneous Access	Max. 10 users
	Video Recording	Recording in client PC with CMS or FTP Server
	Motion Detection	Support
	Privacy Zone	Support
	OSD	Support
	Alarm Input/Output	Support
	Dynamic IP	Support
	IP Router	Support
	DDNS	Support

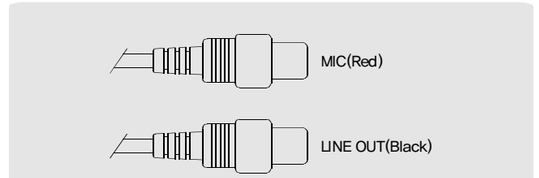
1.4.4 Electric Specification

Classification	Specification
Power Supply	Regulated 12V DC, PoE(Power over Ethernet) - IEEE802.3af
Current Consumption	Max. 1A(DC 12V) IR LED ON
Operation Temp.	-10℃ ~ 50℃
Preservation Temp.	-20℃ ~ 60℃
Dimension	Ø150.5 x 95.6(H)mm
Weight	Approx. 400g

1.4.5 Alarm Input/Output



1.4.6 Audio Input/Output



1.4.7 Basic Setting Table

Item	Default(Basic setting)	Remarks
Network		
Static IP/Dynamic IP	Static IP	
IP Server Enable	Enable	
IP Address	192.168.1.30	
Gateway	192.168.1.1	
Subnet Mask	255.255.255.0	
Web Connection Port	80	
RTSP Port	554	
RTP Port Range	5000 ~ 5999	
ID and Password		
Administrator ID/Password	admin/admin	
User ID/Password	root/root, guest/guest	
Domain of Related Server		
DDNS Server	iplinker.net	
Stream setting		
Stream 1	H.264 15fps@ 2048x1536	rtsp://〈ip address〉:554/stream1
Stream 2	MJPEG 15fps@ 640x480	rtsp://〈ip address〉:554/stream2
Stream 3	None	rtsp://〈ip address〉:554/stream3
Video out*	OFF	After installation, deactivate it.

[Reference] In case to reset hardware and network setting, ID and password of user and Administrator will be automatically returned to the above default value.

*Frame rate can be affected by the external video output option.
So factory default is off. When you install the camera, enable this option. Then disable it after the installation.

Chapter 2. Installation and Video Check

2.1 Installation

On the assumption that User PC and the camera are used under static IP, and the camera is to be directly connected with User PC or Local Network.
The installation procedure is to be;

1) Connect the camera and PC with LAN Cable.
2) Power on camera.
※Use regulated 12V DC 500㎃ or 1A (Built-in IR LED Model)
※ Use PoE(Power Over Ethernet) : The cable includes data and power, so it's easy to install the camera. So, you can save time to install and cost. When you connect the camera with PoE and DC adaptor, Only PoE is used.
3) Wait about 2 minute after power on camera, the system will be booted.

2.2 Network Setting and Video Check

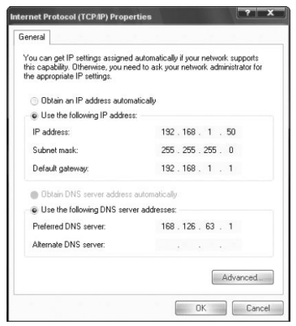
Default network setting value of the unit is to be;.

IP Address	: 192.168.1.30
Subnet Mask	: 255.255.255.0
Gateway	: 192.168.1.1

To connect the unit in user's PC, change the setting value of PC network environment.
〈Caution〉 Before changing the setting value, please memorize the previous setting value on your PC.

2.2.1 Change the setting value of PC network environment

Set IP Address, Subnet Mask and Gate-way of user's PC with 192.168.1.50 / 255.255.255.0 / 192.168.1.1 as shown on below picture.


Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 1 . 50
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 1 . 1
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server: 168 . 126 . 63 . 1
Alternate DNS server:
Advanced...
OK
Cancel

2.2.2 Connect the camera with web browser

Run web browser and input the default IP address(192.168.1.30) in URL line and press "Enter". Then, below picture is to be shown.

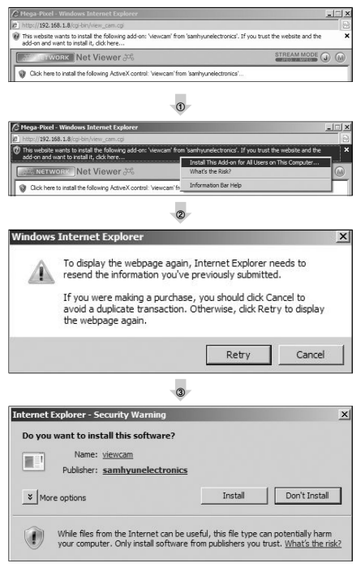
※If the page does not open, Please refer to "Chapter 11 appendix" in the CD.

2.2.3 Input ID/Password

Shown the main page, input ID and Password and click on "Viewer" to see the video feed.(Default administrator's ID &Password is 'admin'.)
〈Caution〉 Please change default value of ID/Password into new ones after the installation.
[Reference] Please refer to 5.3 Administrator's ID and Password Change regarding 'Change Administrator'.

2.2.4 Active-X auto installation

Click "install" on the security certificate to load the Active-X control.
If you choose "Don't install", the web viewer would not work.


Mega-Pixel - Windows Internet Explorer
Net Viewer
①
Mega-Pixel - Windows Internet Explorer
Install This Add-on for All Users on This Computer...
What's the Risk?
Information Bar Help
②
Windows Internet Explorer
To display the webpage again, Internet Explorer needs to resend the information you've previously submitted.
If you were making a purchase, you should click Cancel to avoid a duplicate transaction. Otherwise, click Retry to display the webpage again.
Retry
Cancel
③
Internet Explorer - Security Warning
Do you want to install this software?
Name: viewcam
Publisher: samhyunelectronics
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

2.2.5 Complete the installation

Upon installation, Web Viewer appears and image of camera is to be seen.

Item	Description
①Stream selection	Select stream codec and resolution menu related to live-view was defined only by the admin. (H.264/MPEG/MJPEG)
②Window size	Default size is 640X480. Adjust the screen to the optimal size(Recommendation : Select the same size with stream resolution)
③Connection/Disconnection	Connect or disconnect to the stream
④Recording	Saves the stream as a moving picture file in the .avi format
⑤Capture	Saves the snapshot as an image file in the .bmp format
⑥Saving path	Specify the file saving path
⑦Camera name	Display camera title
⑧Date	Display the date
⑨Time	Display current time
⑩Status Icon	Display the site information such as Day/Night, Motion, Alarm input/output
⑪Stream Info.	Display the stream information such as Audio and recording condition

MEMO

※The specification is subject to change without any prior notice to improve the quality.

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